

REMARKS/ARGUMENTS

Reconsideration of the application is requested.

Claims 1 and 7-8 remain in the application. Claim 1 has been amended. Claims 2-6 have been cancelled.

In item 3 on page 5 of the above-identified Office action, claim 3 has been objected to as being of improper dependent form. Claim 3 has been cancelled.

In the section entitled "Claim Rejections - 35 USC § 103" on pages 5-9 of the above-mentioned Office action, claim 1 has been rejected as being unpatentable over Ahmad (US 6,037,639) in view of Hung et al. (US 5,965,035) under 35 U.S.C. § 103(a); claim 7 has been rejected as being unpatentable over Ahmad in view of Hung et al. and further in view of Krauschneider (US 5,854,500) under 35 U.S.C. § 103(a); claim 8 has been rejected as being unpatentable over Ahmad in view of Hung et al. and further in view of Krauschneider (US 5,854,500) under 35 U.S.C. § 103(a).

As will be explained below, it is believed that the claims were patentable over the cited art in their original form and the claims have, therefore, not been amended to overcome the

references. However, the language of claim 1 has been modified in an effort to even more clearly define the invention of the instant application. More specifically, the limitation that the spacer is "formed only along a step," which is based on a definition of the term "spacer" provided in the textbook "Technologie hochintegrierter Schaltungen" ("Technology of High-integrated Circuits," Widmann/Mader/Friedrich, 1996, 2nd edition, p.64), has been added. See the appendix for the definitions of the terms "spacer" and "passivation layer" from this textbook.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claim 1 calls for, inter alia:

an insulating silicon nitride spacer disposed on said silicon oxide passivation layer and formed only along a step, said spacer acting as an oxidation barrier.

The language of claim 1 of the instant application has been modified in an effort to even more clearly distinguish between a spacer and a passivation layer. As can be clearly seen in Fig. 4 of the instant application, the spacer (7) is disposed on the silicon oxide passivation layer (5') and formed only along a step between the silicon oxide passivation layer (5') and a sidewall of the gate cover (4).

The Examiner has referred to the reference number 136 in Ahmad as the equivalent of the silicon oxide passivation layer (5') of the invention of the instant application, and the reference number 138 in Ahmad as the equivalent of the insulating silicon nitride spacer (7) of the invention of the instant application. However, according to the above-mentioned definition of the term "spacer," the reference number 136 in Ahmad clearly refers to a spacer, but not a passivation layer, because it is formed along a step between the layer 126 and a sidewall of the layer 116. Also, the reference number 138 in Ahmad cannot refer to a spacer because it covers the entire surface, not just a step. Therefore, the reference number 136 in Ahmad cannot refer to a passivation layer, but rather to a spacer, and the reference number 138 cannot refer to a spacer, but rather to a cap layer covering the entire structure.

The Examiner may arguably equate the layer 126 in Ahmad with the passivation layer (5') of the invention of the instant application and equate the layer 136 in Ahmad with the spacer (7) of the invention of the instant application. However, it is noted that the material for the layer 136 in Ahmad is oxide, not silicon nitride as recited in claim 1 of the instant application.

Clearly, Ahmad does not show "an insulating silicon nitride spacer disposed on said silicon oxide passivation layer and formed only along a step," as recited in claim 1 of the instant application.

The other cited references do not make up for the deficiencies of Ahmad.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claim 1. Claim 1 is, therefore, believed to be patentable over the art and since claims 7-8 are dependent on claim 1, they are believed to be patentable as well.

In view of the foregoing, reconsideration and allowance of claims 1 and 7-8 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate a telephone call so that, if possible, patentable language can be worked out.

Petition for extension is herewith made. The extension fee for response within a period of one month pursuant to Section

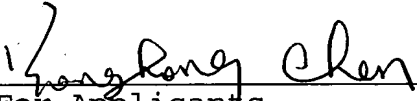
Applic. No.: 09/885,553
Amdt. Dated June 27, 2005
Reply to Office action of February 25, 2005

1.136(a) in the amount of \$120.00 in accordance with Section
1.17 is enclosed herewith.

Please charge any other fees which might be due with respect
to 37 CFR Sections 1.16 and 1.17 to the Deposit Account of
Lerner and Greenberg, P.A., No. 12-1099.

Respectfully submitted,

Yonghong Chen
Reg. No. 56,150

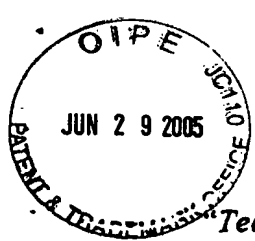


For Applicants

YC

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Lerner and Greenberg, P.A.
Post Office Box 2480
Hollywood, FL 33022-2480
Tel: (954) 925-1100
Fax: (954) 925-1101



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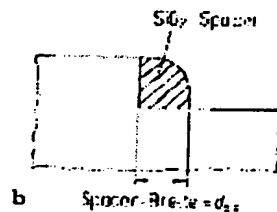
"Technologie hochintegrierter Schaltungen" (technology of high-integrated circuits) by Widmann/Mader/Friedrich (1996), second edition. Therein, on page 64, a spacer is defined as:

"Unter Spacer (=Abstandsstück) versteht man eine Struktur, die sich nur entlang einer Stufe ausbildet."

This can be translated to:

A spacer is understood to be a structure formed only along a step.

This definition is further fortified by the fig. 3.5.1b on page 65 of the text book.



Hereto in contrary, a passivation layer is explained as follows (see above-mentioned text book page 308/309):

"Um die integrierten Schaltungen gegen Korrosion und mechanische Beschädigungen zu schützen, wird nach der Strukturierung der obersten Metallebene eine Passivierungsschicht aufgebracht, die lediglich an denjenigen Stellen geöffnet wird, wo die Anschlußdrähte (Bonddrähte) angebracht werden (Pads)."

This can be translated to:

"In order to protect the integrated circuits against corrosion and mechanical damages, after the structuring of the highest metal level, a passivation layer is applied, which is opened only at those positions where the bond wires are mounted (pads)."

Hence, Examiner's viewpoint, i.e. equating spacers and passivation layers, is not correct in view of the knowledge of a person skilled in the art.